

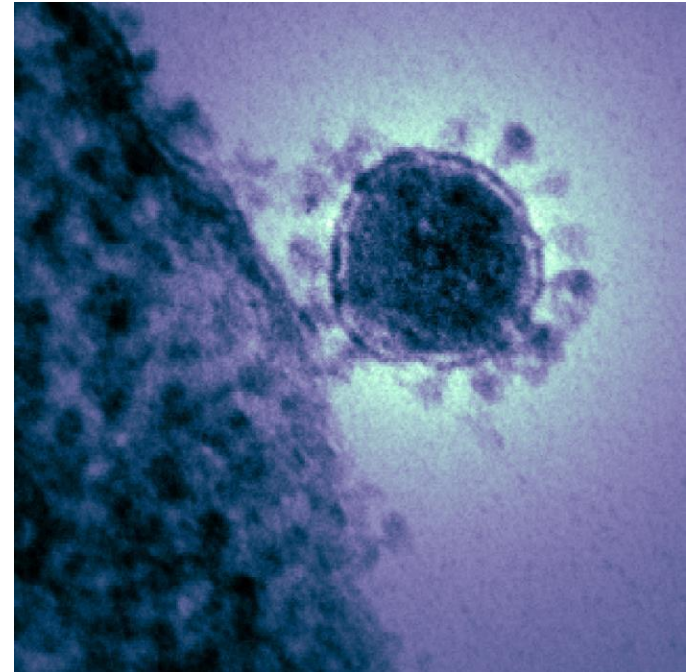
COVID-19: What Nursing Facilities Need to Know

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March 12, 2020

Coronaviruses

- RNA virus
 - Alpha and beta - infect mammals
 - Delta and gamma - infect birds
- Bats are important reservoir
- Genome changes are common
 - SARS-CoV and MERS-CoV are on WHO Priority Pathogen list



Human Coronaviruses

4 HCoVs are endemic globally

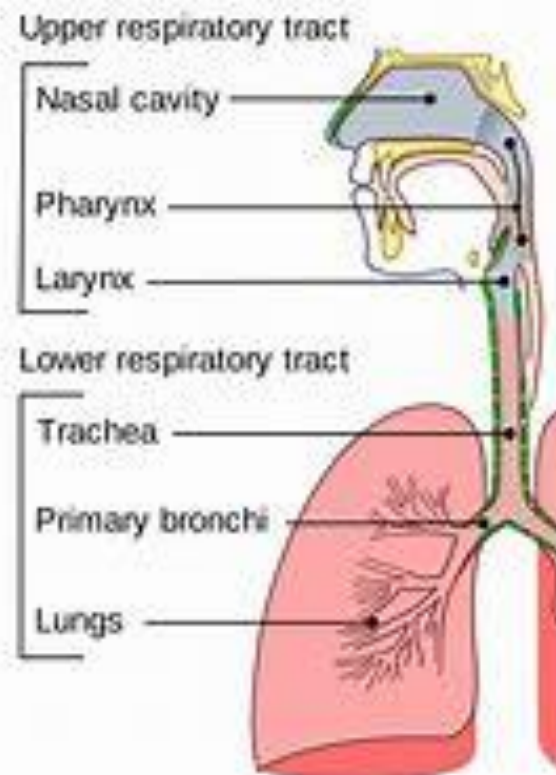
- 0%-30% of upper respiratory tract infections in adults

2 highly pathogenic HCoVs

- Lower respiratory tract infections
- 2002 - SARS
- 2012 - MERS

SARS-CoV-2, the novel coronavirus that causes COVID-19

- Still learning about virus
- Respiratory symptoms have ranged from mild to severe



COVID-19 OUTBREAK IN CHINA

Findings Published by the World Health Organization

Report of the WHO-China Joint Mission

on Coronavirus Disease 2019 (COVID-19): 16-24 February 2020

Submitted February 28, 2020

www.who.int/docs/default-source/coronaviruse/who-china-joint-mission-on-covid-19-final-report.pdf

COVID-19 Signs and Symptoms among Confirmed Cases Reported in China

Sign or symptom*	%
Fever	87.9
Dry Cough	67.7
Fatigue	38.1
Sputum	33.4
Shortness of breath	18.6
Myalgia or arthralgia	14.8
Sore throat	13.9
Headache	13.6
Chills	11.4
Nausea or vomiting	5.0
Nasal congestion	4.8
Diarrhea	3.7

*Among 55,924 confirmed cases

Key Findings from the WHO-China Report (as of 2/20/20)

Location and Occupation

**Hubei
Province:
77.0%**

**Farmers or
Laborers:
21.6%**

Age

**Median Age:
51 years**

**Range: 2 days
- 100 years**

**30-69 years:
77.8%**

**<19 years:
2.4%**

Sex

Male: 51.1%

**Female:
48.9%**

Spectrum of Disease

Mild: 80%

**Severe:
13.8%**

Critical: 6.1%

Key Findings from the WHO-China Report (as of 2/20/20)

Duration of Illness

Mild Disease: ~2 Weeks

Severe or Critical Disease: 3-6 Weeks

Onset to Severe Disease: 1 Week

Onset to Death: 2-8 Weeks

Severe Disease or Death

Increased with Age

Case-fatality Rate >80 Years: 21.9%

Case-fatality Rate in Males: 4.7%

Case-fatality Rate in Females: 2.8%

Severe Disease <19 Years: 2.5%

Critical Disease <19 Years: 0.2%

Case-fatality Rate by Comorbidity

No Comorbidity: 1.4%

Cardiovascular Disease: 13%

Diabetes: 9.2%

Hypertension: 8.4%

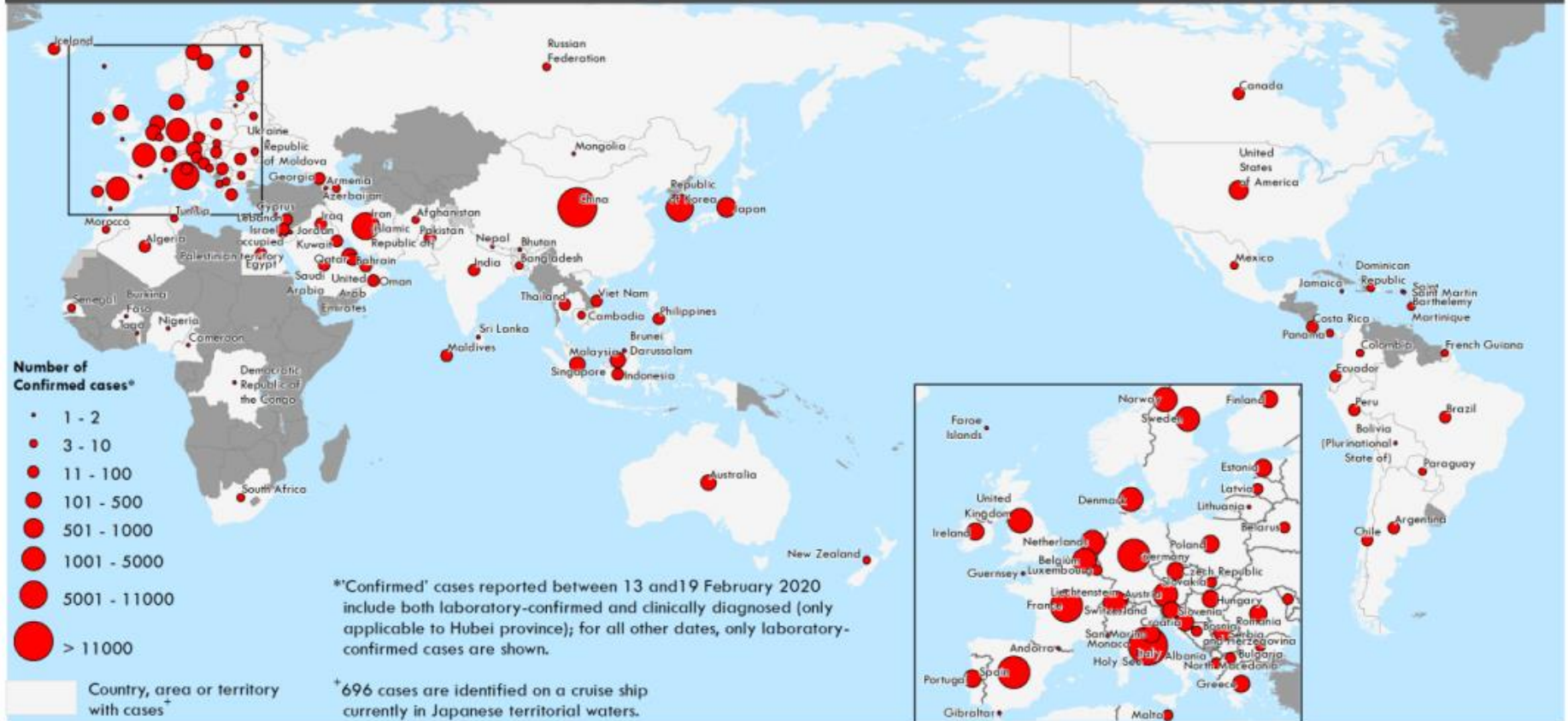
Chronic Respiratory Disease: 8.0%

Cancer: 7.6%

China's Response

- Public information and targeted education
- Identified, isolated and provide medical care for cases
- Identified and quarantined contacts of cases
- Tracked cases and contacts
- Expanded healthcare staffing and hospital bed capacity
- Cancelled mass gatherings
- Closed wet markets and wildlife markets
- Banned travel in and out of Wuhan and surrounding jurisdiction
- Controlled transportation

Distribution of COVID-19 cases as of 11 March 2020



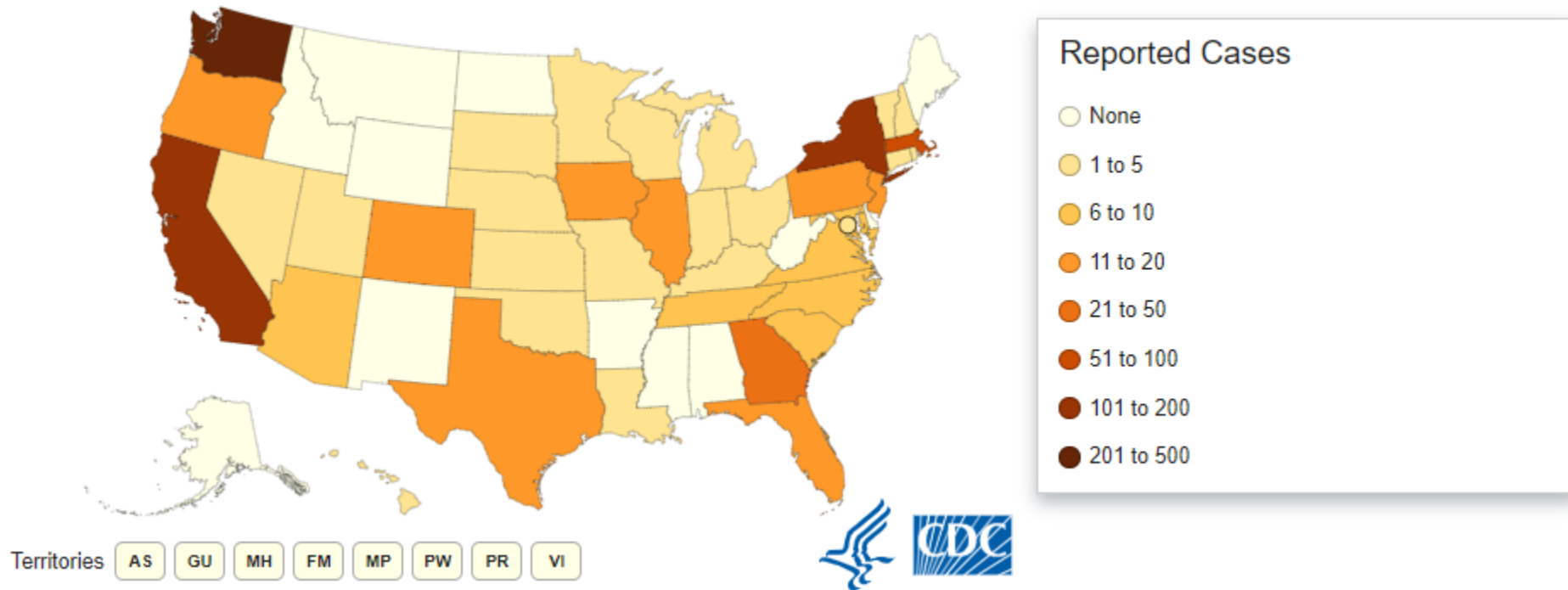
Data Source: World Health Organization

Map Production: WHO Health Emergencies Programme

Not applicable

States Reporting Cases of COVID-19 to CDC

As of 3/11/20, Total U.S. Cases = 938; Total U.S. Deaths = 29



As of 3/11/20, Virginia had 9 cases of COVID-19

Guidance for Nursing Facilities

Infection Control

- Minimize chance for exposures
- Adherence to Standard, Contact, and Airborne Precautions, including the use of eye protection
- Manage visitor access and movement within the facility
- Implement engineering controls
- Monitor and manage ill and exposed healthcare personnel
- Train and educate healthcare personnel
- Implement environmental infection control

www.cdc.gov/coronavirus/2019-ncov/infection-control/control-recommendations.html

Updated Interim CDC Guidance for Long-Term Care Settings

<https://www.cdc.gov/coronavirus/2019-ncov/healthcare-facilities/prevent-spread-in-long-term-care-facilities.html>

(Updated on **March 10**)

This guidance should be used with the CDC Interim Infection Prevention and Control Recommendations for Patients with Confirmed COVID-19 or Persons Under Investigation for COVID-19 in Healthcare Settings

<https://www.cdc.gov/coronavirus/2019-ncov/infection-control/control-recommendations.html>

(Updated **March 10**)

Actions to Take Now

- Educate Residents/Families, Healthcare Personnel (HCP), and Visitors
 - Share the latest information on COVID-19 (see resources section in this presentation)
 - Educate and train HCP including facility based personnel, consultants, and volunteers
- Provide Supplies for Recommended Infection Prevention and Control Practices
 - Ensure all sinks are well stocked with soap and paper towels
 - Add alcohol-based hand sanitizer with 60-95% alcohol in every resident room
 - Have respiratory hygiene and cough etiquette supplies available
 - Consider designating staff to steward these supplies and encourage appropriate use

Actions to Take Now

- Have necessary personal Protective Equipment (PPE) available in resident care areas
- Supplies of PPE needed include: facemasks, respirators (if available and the facility has a respiratory protection program with trained, medically cleared, and fit tested HCP), gowns, gloves, and eye protection (i.e., face shield or goggles)
- Ensure appropriate environmental cleaning and disinfection products are available to allow for frequent cleaning of high touch surfaces and shared equipment
- Refer to List N <https://www.epa.gov/pesticide-registration/list-n-disinfectants-use-against-sars-cov-2> on the EPA website for the registered list that qualify under EPA's emerging viral pathogens program for use against SARS-CoV-2

Actions Now

- Evaluate and Manage HCP with Symptoms of Respiratory Illness
- Non-punitive sick leave policies
- Ask HCP including consultants to regularly monitor for fever and symptoms of respiratory infection
 - Stay home when ill!
 - Report to supervisor/occupational health
- Develop or review existing plans to mitigate staffing shortages

<https://www.cdc.gov/coronavirus/2019-ncov/hcp/guidance-risk-assesment-hcp.html>

CMS Guidance for Infection Control and Prevention of COVID-19

- CMS Memo issued March 4 and updated on **March 9**
 - Guidance to nursing homes to help improve infection prevention and control practices to prevent transmission of COVID-19
 - Coordination with CDC and local public health departments
 - Expanded recommendations and guidance for limiting visitors
- Questions and answers for transfers and admissions
- Updated links to CMS and CDC resources

<https://www.cms.gov/files/document/qso-20-14-nh-revised.pdf>

PUBLIC HEALTH SYSTEM RESPONSE

Travel Notices and Restrictions (as of 3/11/20)

WARNING LEVEL 3	ALERT LEVEL 2	WATCH LEVEL 1
RECOMMENDATION Avoid Nonessential Travel	RECOMMENDATION Practice Enhanced Precautions	RECOMMENDATION Practice Usual Precautions
AFFECTING China, South Korea, Iran, Italy	AFFECTING Japan	AFFECTING Hong Kong

- CDC recommends travelers, particularly those with underlying health issues, defer all cruise ship travel.

Entry of foreign nationals from these destinations has been suspended:

- China
- Iran

Public Information



Comprehensive public information campaign - media, webpage, 211 call center (**1-877-ASK-VDH3**), targeted communications

Targeted Health Information

About Coronavirus Disease 2019 (COVID-19)

Travelers

Healthcare Professionals

Educational Institutions

Businesses

Virginia Reporting Requirements

COVID-19 is a reportable condition

Healthcare providers are legally required to report all suspected cases and confirmed cases to the local health department **immediately**

Healthcare providers are encouraged to report cases using our online electronic reporting tool whenever possible

Locate your Local Health Department

HEALTH DEPARTMENT LOCATOR

Enter Your Address or Search radius Results

Zip Code

Richmond City Health Department

400 East Cary St.
Richmond Virginia 23219

Phone: 804-205-3500

Fax: 804-371-2207

[Business Hours \(Call For Information\)](#) ▼

[Directions](#)

Richmond City Health Department – WIC Community Hospital

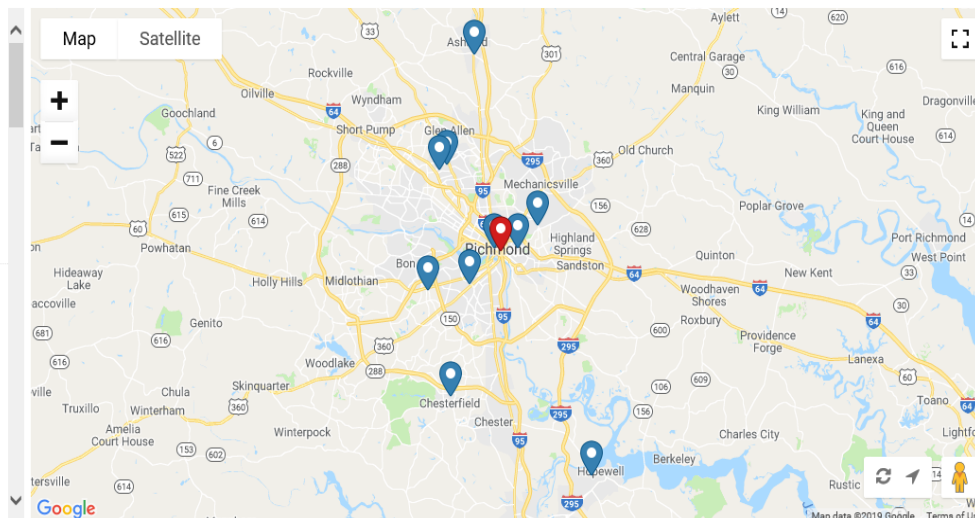
1510 North 28th St.
Suite 208
Richmond Virginia 23223

Phone: 804-786-3201

Fax: 804-225-7359

[Business Hours \(Call For Information\)](#) ▼

[Directions](#)



COVID-19 Testing Availability

Virginia Public Health Lab (DCLS)

- Testing specimens as of February 29, 2020
- VDH approval required - specimens should not be sent without approval
- Specimen collection guidance available on [DCLS website](#)

Private Labs

- Select private labs are able to perform testing as of March 6, 2020
- VDH approval is not necessary
- Contact your lab provider to determine testing availability

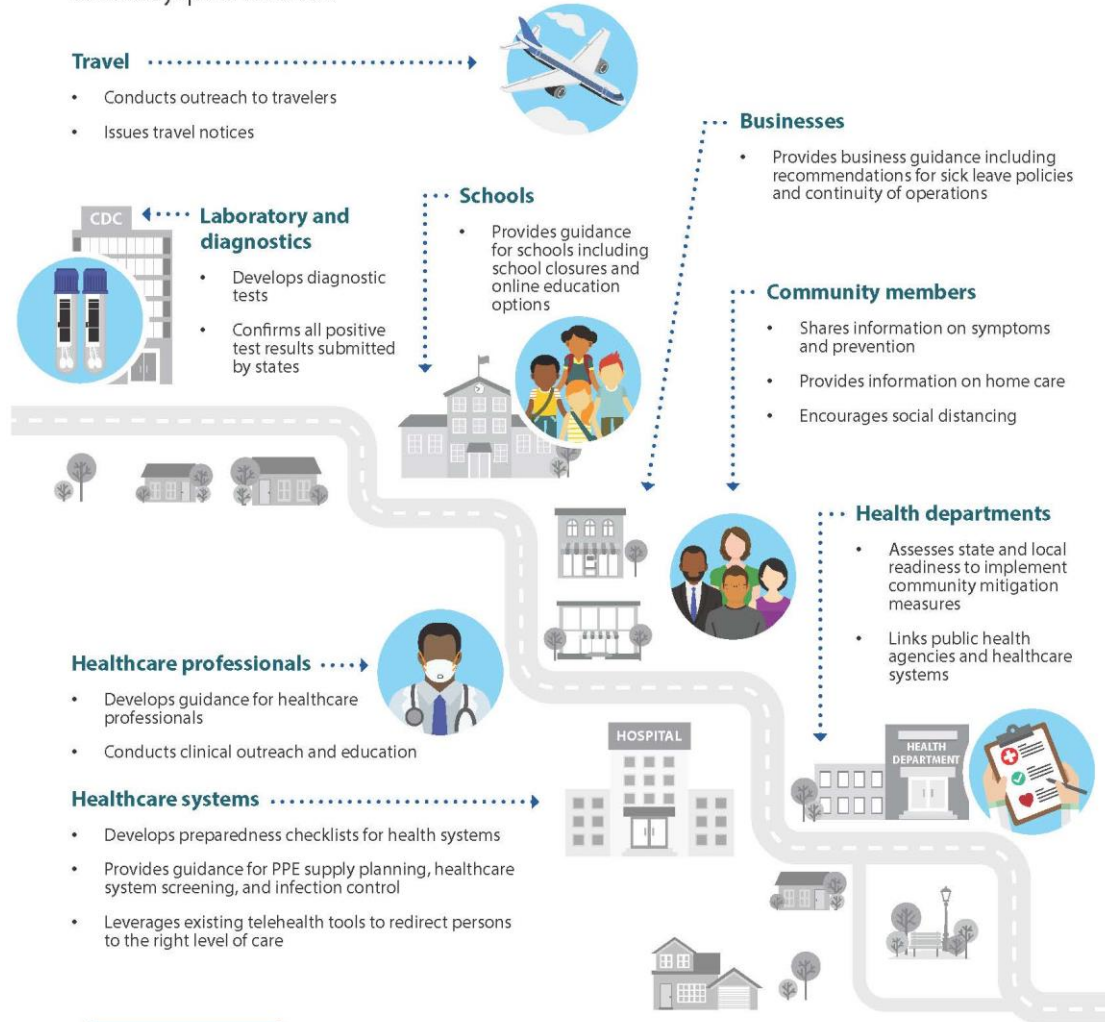
Clinical Management

- Currently no specific antiviral treatment
- Prompt infection prevention and control and supportive management of complications is recommended
- Patients with mild illness might not initially require hospitalization
- Signs and symptoms might worsen in 2nd week of illness
- Decision to monitor patient in an inpatient or outpatient setting is made on case-by-case basis
- Avoid corticosteroids unless indicated for other reasons

Guidance on Assessment and Monitoring of Healthcare Contacts

- Addresses assessment of risk, monitoring, and work restriction decisions for HCP with potential exposure to a patient with confirmed COVID-19
- Healthcare personnel are classified as high-, medium-, or low-risk depending on multiple factors
 - Duration of exposure, patient symptoms, if patient was wearing facemask, aerosol-generating procedures, and type of PPE used by healthcare personnel
- Recommendations for monitoring for COVID-19 and work restrictions depend on exposure risk classification

CDC is aggressively responding to the global outbreak of COVID-19 and preparing for the potential of community spread in the U.S.



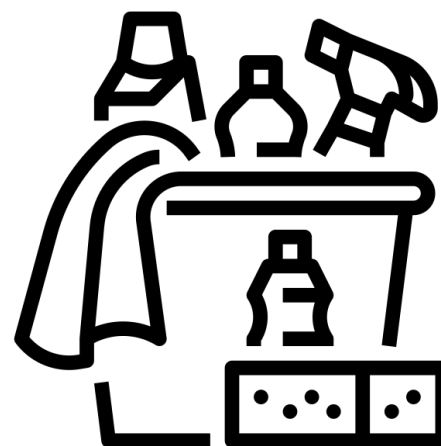
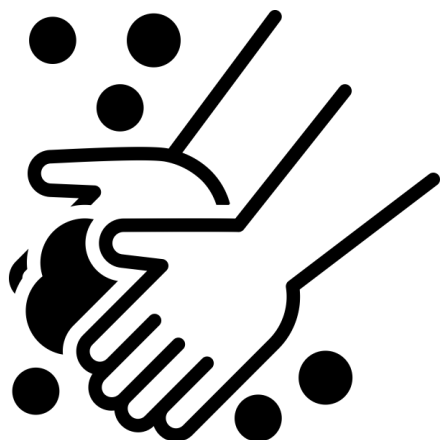
Vaccination and Treatment

- Clinical trials for treatment and vaccines in development
- **Treatment**
 - Currently no specific antiviral treatment
 - Supportive care
 - Research is ongoing
- **Vaccine**
 - Currently no vaccine
 - NIH research and development ongoing
 - Projected timeline = 12-18 months

List of treatments and vaccines in development

www.clinicaltrialsarena.com/analysis/coronavirus-mers-cov-drugs/

Nonpharmaceutical Interventions



Nonpharmaceutical Interventions: Resources

- Preventing COVID-19 Spread in Communities:
www.cdc.gov/coronavirus/2019-ncov/community/index.html
- CDC Community Mitigation Guidelines to Prevent Pandemic Influenza-United States, 2017:
www.cdc.gov/mmwr/volumes/66/rr/rr6601a1.htm#suggestedcitation

Build on Pandemic Influenza Preparedness

- COVID-19 seems to be spreading much like flu
- Pan flu preparedness ongoing since 2004
 - 2019 - Cardinal Resolve exercise involving over 400 stakeholders from across Virginia
- VDH reviewing pan flu plans and guidance to inform COVID-19 preparedness
- VDH actively encouraging partners in all sectors to review their pandemic flu plans and adapt them to this situation

Healthcare Supply of PPE

- U.S. healthcare systems are reporting higher than normal use for N95 respirators
- Some healthcare systems have begun reporting that orders for N95 respirators and facemasks are not being filled or are only being partially filled by distributors
- Major pharmacy chains have reported stock outs of N95 respirators and facemasks with delays in replenishment of inventory
- **CDC is encouraging healthcare systems to implement strategies to conserve supplies**

Healthcare Supply of PPE

- Strategies for Ensuring Healthcare Systems Preparedness and Optimizing N95 Supplies:
www.cdc.gov/coronavirus/2019-ncov/hcp/healthcare-supply-ppe.html
- CDC Webinar:
www.cdc.gov/vaccines/videos/coronavirus/COVID-19-webinar.pdf
- Report any healthcare facility supply chain issues to the Regional Healthcare Coalition. They may be able to leverage existing resources to support coalition members.

Resources for Healthcare Facilities

- Steps Healthcare Facilities Can Take Now to Prepare for Coronavirus Disease 2019 (COVID-19):
www.cdc.gov/coronavirus/2019-ncov/healthcare-facilities/steps-to-prepare.html
- Interim Guidance for Healthcare Facilities: Preparing for Community Transmission of COVID-19 in the United States:
www.cdc.gov/coronavirus/2019-ncov/healthcare-facilities/guidance-hcf.html
- Strategies to Prevent Spread of COVID-19 in Long-Term Care Facilities: www.cdc.gov/coronavirus/2019-ncov/healthcare-facilities/prevent-spread-in-long-term-care-facilities.html
- Interim ICD-10 Coding Guidance for COVID-19:
www.cdc.gov/nchs/data/icd/ICD-10-CM-Official-Coding-Guidance-Interim-Advice-coronavirus-feb-20-2020.pdf

Knowledge Gaps

- Source of infection
- Pathogenesis and virulence evolution of the virus
- Transmission dynamics
 - Role of aerosol transmission in non-healthcare settings
 - Role of fecal-oral transmission
- Viral shedding
- Risk factors for infection
 - Asymptomatic infection
- Seasonality

General COVID-19 Resources

Virginia Department of Health (VDH)

- [35 Local Health Districts](#)
- www.vdh.virginia.gov/coronavirus

Centers for Disease Control and Prevention (CDC)

- COVID-19 Website: www.cdc.gov/coronavirus/2019-nCoV
- Health Alert Network (HAN):
<https://emergency.cdc.gov/han/2020.asp>

World Health Organization (WHO)

- www.who.int/emergencies/diseases/novel-coronavirus-2019



Thank you!

Please send questions to:

respiratory@vdh.virginia.gov